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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,258	04/05/2001	Richard Woods	1002-116.US	4346

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EXAMINER

HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

091827258

Applicant(s)

Woods

TH

Examiner

Hebickson

Group Art Unit

7754

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 6/28/04
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-3, 5-22, 24, 25 is/are pending in the application.
- Of the above claim(s) 1-3, 5-21 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☐ Claim(s) 22, 24, 25 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 6/28/04
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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The traverse is noted, however the apparatus can be used to practice the different process of hazardous waste destruction. The process can be used in an apparatus that does not have a physical *means* to cause pulsation. The status identifiers for the **withdrawn** claims are incorrect. The discussion of '970 is noted, but the reference teaches pulsing the flow (injecting, then not injecting). The argued feature of seeing a constant flow of oxygen is not claimed. Accordingly, the reference does render the claims unpatentable, see below.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 22 is rejected under 35 U.S.C. 102(e) as being anticipated by Fronk.

Fronk teaches, especially in columns 2 and 3, pulsing an oxidant into a stream containing CO and hydrogen to selectively oxidize CO. The control of oxygen supply implies pulsed flow, as 'pulsed' only excludes *continuous* flow of *constant* velocity.

Claims 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fronk. Fronk, *supra*, does not contemplate the use of multiple PROX reactors, however indicates that this is possible. Indeed, this is deemed an obvious expedient to assure complete oxidation, noting also *In re Harza* 124 USPQ 378. Claim 24 is deemed taught since minor fluctuations expected in the initial gas flow meet the limitation of 'pulsed'. Further, deliberately pulsing the

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CO/hydrogen flow is an obvious expedient to avoid oxygen buildup and prevent oxidation of the hydrogen and to also maintain steady-state operation conditions when necessary.

In so far as pulsing is interpreted to require a flow which is constant yet variable, pulsing the flow is an obvious expedient to maintain selective oxidation conditions in response to changing temperature or fluctuations in the CO/hydrogen flow or other system parameters.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (571) 272-1351.

A handwritten signature in black ink, appearing to read 'Stu Hendrickson', is positioned above the printed name.

Stuart Hendrickson
examiner Art Unit 1754